

Value and Validity in Action Research

A Guidebook for Reflective Practitioners

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Exercise B. For what topics do you need to do a literature review for your action research project?

WHAT SHOULD I LOOK FOR?

Quality

Before you begin searching, there are a few things you need to know about the literature that's out there. There is a wide range in the quality of books, articles, other action research projects, and websites that you will find. Consider whether you're reading someone's opinion or whether the topic is well researched. Every book, article, or website that you use should have a bibliography or reference list. This list of sources will indicate how well researched the text is. It also will give you suggestions for other sources that you can read. Distinguish between journals that provide teachers with good ideas, like *Mathematics Teacher*, and journals that are research based, like *School Science and Mathematics Journal*. If your action research project involves using project-based learning, you may get a great idea for projects that you could do in an elementary math classroom from *Arithmetic Teacher*, but you should investigate whether project-based learning deepens students' understanding of math concepts before you design your units. In other words, find out whether researchers have established that using projects will accomplish your learning goals and objectives by looking in an academic journal.

Objectivity

Look for books and articles that contradict your position as well as those that support it. If you are researching reading instruction, look at the research on phonics as well as whole language. Ask why whole language replaced direct instruction and why balanced literacy replaced whole language. Seek to understand the historical context of what you are investigating. Look for various viewpoints. Did whole language go out of favor because children weren't learning to read? Was it poorly implemented?

Timeliness

Usually it's best to look at the most current thinking in your field. For some areas it's particularly important that you use recent research. For example, in the field of brain-based learning, scientists are discovering new things about the brain every day. Some theories that were popular, such as the left brain/right brain dichotomy, have been debunked. We now know that the brain can grow new neurons; it wasn't long ago that neuroscientists thought the brain could only grow dendrites. Start by looking at what's been written in the last five years.

Obviously, though, there are cases in which you will want to look at literature that was written several years ago. If your project is dealing with multiple intelligences, you will want to read Howard Gardner's *Frames of Mind* (1983), his seminal work on the topic. However, if you read only this book, you'd be unaware that Gardner has added other intelligences.

Quantity

It's impossible to answer the question "How much should I read?" One clue that you're becoming well read in your field is that you start recognizing names that recur in different bibliographies. When you know who the "big names" in a field are, you can feel confident that you haven't missed any significant information. Do you understand the current trends in the field? Do you understand the historical context of your topic? Have you found research that examines both sides of the issues? Do you have enough information to design a good action research project? If so, you probably can stop researching.

WHERE DO I BEGIN?

The proliferation of online databases and search engines has made searching easier and more accessible for most people. These searching methods, however, are not without their problems. You need to use the correct key or subject words, or you may be searching for hours without results. And if you do find information, you have to be very careful in verifying that it

comes from reputable, academic sources. The Internet has lots of treasures but loads of trash, too.

ERIC

You probably want to start your search with the Educational Resources Information Center (ERIC). ERIC was established in 1966 by the United States Department of Education. Although it is very useful, because it is the largest database for education, it is a clearinghouse. This means that it is not refereed like research journals are, so the quality varies greatly.

You can find two kinds of references on ERIC. If the number begins with "ED," it refers to an ERIC document. These documents usually are unpublished studies and reports. They are retrievable using microfiche. Some libraries have complete sets of ERIC microfiche; others can order the documents for you. Some libraries subscribe to EDRS, an online source of "ED" documents. Through these subscriptions, some documents are available free for patrons, or they can be ordered for a fee. Some of these documents are books and can be obtained through your library or interlibrary loan.

Numbers beginning with "EJ" refer to journals. Articles that have been published in professional journals can be located through an ERIC search. Once you have found a title that sounds interesting, check with your library to see if it carries the journal. Otherwise you can get a copy of the article through interlibrary loan. ERIC does provide some full-text articles.

When you begin searching, you will have to determine which keywords will yield the best results. Perhaps you're interested in doing a problem-based unit for your action research project. During a search, 445 entries were found for "problem-based learning." That is too many entries to look at, so you need to limit your search by adding another term. However, only one entry was found for "problem-based learning and K-12 education." There were eleven entries for "problem-based learning and elementary education." Using the correct keyword can make all the difference. There were no entries for "problem-based learning and high school education," but there were 95 entries for "problem-based learning and secondary education." "High school education" is not an ERIC descriptor, so it won't provide any entries.

You can use the Thesaurus of ERIC Descriptors to help determine which terms will yield the best results. ERIC has listed descriptors that capture the main ideas in the thousands of documents that it has catalogued.

By doing a Boolean search, you can use the terms "and," "or," and "not" to broaden your search or narrow it. The keywords "problem-based learning and secondary education" told ERIC to search for results that contain both terms. The keywords "problem-based learning or secondary education" indicate that each result would contain one of the keywords, but not necessarily both. The keywords "problem-based learning not secondary education" would provide results in which the term "problem-based learning" would occur, but not "secondary education."

When you do an ERIC search, the results will be listed from most recent to least recent. Look at the bibliographies in the most recent entries. You will find these bibliographies to be great resources.

AskERIC will answer questions that you have about searching, usually within two working days. E-mail askeric@askeric.org with your questions, and you will receive suggested ERIC and other electronic sources to help you answer them.

Other Databases

Other databases can also be searched, but ERIC is the largest and, therefore, will yield the most results. During one search, ERIC yielded 445 entries for "problem-based learning." Academic Elite had 191, and Middle Search Plus had 8. However, it is good to search more than one database because you may find different results. Databases sometimes provide full texts. However, don't be lured by the ease of using only full-text articles. Find the best sources you can. It is not difficult to order books and articles from other libraries.

Knowing how databases work is important. They generally have some sort of "help" function that can explain this. Databases may look different if you access them from different sources. Different vendors use different procedures and looks, and libraries have some flexibility in customizing databases.

Internet

The Internet can also be searched by using directories or search engines. Directories are generally lists of sites, arranged in hierarchies. You select a category or topic at each level, becoming more and more specific as you search. Yahoo! is an example of a directory. Search engines let you

enter search terms that are searched against indexes of Internet sites. For most search engines you can use “and,” “or,” and “not” to limit your search. Alta Vista is an example of a search engine.

Evaluating Internet Sites

The quality of the information on the Internet varies widely. To decide whether or not a particular site should be used in your review of literature, consider the following:

- Who is the author? What kind of credentials does this person have? Is the person an authority on the topic?
- Is there a bibliography? What are the sources of the information on the site? Can you find the same information from other reputable sources?
- Why was the information put on the site? Does the person/group have an agenda? For example, is the site trying to raise money for a cause?
- Does the site provide multiple perspectives or is the information biased?
- How often is the site updated?